

Stephanie Willis (Engineering) - Quito, Ecuador, October 2012

I have just returned from Ecuador where I spent a wonderful two months. I went to Ecuador because I had an Engineer's Without Borders placement in Quito with the EcoHouse Initiative. The placement was 5 weeks long but I decided that, having bought flights, I should make the most and so travelled for 3 weeks before my placement started.

The purpose of my placement was to consolidate a lot of work that the EcoHouse initiative has done this year here in Cambridge. The Initiative has been working with a Latin American NGO called 'Un Techo para mi País' – a roof for my country. We have been making some changes to the design of the transitional house which Techo build. On placement we needed to present our Innovations to Techo, get their feedback and then build two prototypes.

After three weeks of rainforests, mountains and whale filled oceans, I arrived in Quito keen to start work. The main focus to begin with was to visit a lot of communities in which there were existing Techo houses and to talk to the people who lived there. This served multiple purposes. We were able to talk to the people who lived in the houses and get their feedback on the good and bad features of the house. We were able to see the problems with the structure of the house after a few years and we were also able to get a much better of who it is that we are building houses for. An improved understanding of the design environment will be a huge help in design this year.

With a little context under our belts we presented our innovations to Techo in order to get some feedback. The Techo directors are not technical but are extremely knowledgeable about the social aspects of their work. Their feedback was vitally important to us because we had no desire to make changes that the inhabitants would not want to have in their homes.

Hoping that we had ordered all we needed we showed up at the factory on the weekend before construction ready to make panels. Two days, many broken screws and some elevated stress levels later, the panels were loaded on the truck ready to go to site. We retired home dusty, achy and very happy with the weekend's work.

Two days later half of us headed to the North of Quito and half to the South in order to put up our houses. Having met the lovely Dona Maria for whom we were building the house, we got on with digging the foundations. Day one saw a complete floor, day two walls, windows, doors and roof beams and day three saw the final addition of the roof sheeting, the gutters and the solar bulbs.

I have never had a more enjoyable, more demanding learning experience. The wealth of knowledge and experience gained will set me in wonderful stead for the next time I'm trying to organize people who speak 3 different languages to build a house to a design they don't know with people they can't communicate with.